

4 receiving a call handle associated with the incoming call at the automated
5 attendant from the telephone switch;
6 applying the call handle to retrieve caller information associated with the call
7 handle; and
A 1
8 using the retrieved caller information at the automated attendant to handle the call
9 if caller information associated with the call handle is found.

1 2. (Amended) The method of claim 1, wherein receiving a call handle
2 comprises receiving a tone sequence at a port of the automated attendant, decoding the
3 tone sequence, and deriving the call handle from the decoded tone sequence.

1 3. The method of claim 1, wherein the tone sequence is a DTMF tone
2 sequence transmitted to the port over the same transmission line as the incoming call.

1 4. The method of claim 1, wherein receiving a call handle comprises
2 receiving a call handle message through a digital interface.

1 5. The method of claim 1, wherein the digital interface comprises a digital
2 backplane connection to a switch from which the incoming call was received.

1 6. The method of claim 1, wherein receiving an incoming call comprises
2 receiving an incoming call from a switch and wherein receiving a call handle comprises
3 receiving a call handle from the switch.

1 7. The method of claim 1, wherein using the retrieved caller information
2 comprises providing audio information in a language previously selected by the caller.

1 8. The method of claim 1, if no caller information associated with the call
2 handle is found, further comprising:

3 requesting caller information from the caller;
4 storing received caller information in association with the call handle; and
5 using the received caller information to handle the call.

1 9. The method of claim 1, further comprising receiving an indication of
2 whether the call is a forwarded call and wherein retrieving caller information and using
3 the retrieved information are performed only if the call is a forwarded call.

1 10. The method of claim 9, if the call is not a forwarded call, further
2 comprising:

3 requesting caller information from the caller;
4 storing received caller information in association with the call handle; and
5 using the received caller information to handle the call.

1 11. (Amended) A machine-readable medium having stored thereon data
2 representing instructions which, when executed by a machine, cause the machine to
3 perform operations comprising:

A2 4 receiving an incoming call at a port of an automated attendant from a telephone
5 switch;

6 receiving a call handle associated with the incoming call at the automated
7 attendant from the telephone switch;

8 applying the call handle to retrieve caller information associated with the call
9 handle; and

A2 10

using the retrieved caller information to handle the call at the automated attendant
11 if caller information associated with the call handle is found.

1 12. The medium of claim 11, wherein if no caller information associated with
2 the call handle is found, the instructions, when executed by the machine, cause the
3 machine to perform further operations comprising:

4 requesting caller information from the caller;
5 storing received caller information in association with the call handle; and
6 using the received caller information to handle the call.

1 13. The method of claim 11, wherein if the call is not a forwarded call, the
2 instructions, when executed by the machine, cause the machine to perform further
3 operations comprising:

4 requesting caller information from the caller;
5 storing received caller information in association with the call handle; and
6 using the received caller information to handle the call.

1 14. An apparatus comprising:
2 an automated attendant port to receive an incoming call;
3 an automated attendant port to receive a call handle associated with the incoming
4 call;
5 a memory containing caller information associated with call handles; and

6 a processor to apply the call handle to retrieve caller information and use the
7 retrieved caller information to handle the call if caller information associated with the call
8 handle is found.

1 15. The apparatus of claim 14, wherein the automated attendant port to receive
2 the call handle comprises a digital interface.

1 16. The apparatus of claim 15, wherein the digital interface comprises a digital
2 backplane connection to a switch from which the incoming call was received.

1 17. (Amended) A method comprising:

2 receiving an incoming call at a telephone switch;
3 generating a call handle as a set of in-band signaling tones for the incoming call at
4 the telephone switch;

5 routing the incoming call to a port of a call handling system;

A3
6 sending the call handle to the call handling system as in-band signaling tones in
7 association with the routed call;

8 receiving a transfer of the routed call at the telephone switch from the call
9 handling system;

10 re-routing the incoming call from the telephone switch back to a port of the call
11 handling system; and

12 sending the call handle as in-band signaling tones from the telephone switch to
13 the call handling system in association with the re-routed call.

1 18. (Amended) The method of claim 17, wherein sending the call handle
A3 2 comprises deriving a tone sequence for the identification, coding the tone sequence into
3 tones and sending the tone sequence to the call handling system port.

1 19. The method of claim 17, wherein the tone sequence is a DTMF tone
2 sequence transmitted to the call handling system port over the same transmission line as
3 the incoming call.

1 20. The method of claim 17, wherein sending the call handle comprises
2 sending an identification message through a digital interface.

1 21. The method of claim 17, wherein the digital interface comprises a digital
2 backplane connection to the call handling system.

1 22. A machine-readable medium having stored thereon data representing
2 instructions which, when executed by a machine, cause the machine to perform
3 operations comprising:

4 receiving an incoming call at a telephone switch;

5 generating a call handle as a set of in-band signaling tones for the incoming call at
6 the telephone switch;

7 routing the incoming call to a port of a call handling system;

8 sending the call handle to the call handling system as in-band signaling tones in
9 association with the routed call;

10 receiving a transfer of the routed call at the telephone switch from the call
11 handling system;

12 re-routing the incoming call from the telephone switch back to a port of the call
13 handling system; and

14 sending the call handle as in-band signaling tones from the telephone switch to
15 the call handling system in association with the re-routed call.

1 23. The medium of claim 22, wherein the instructions for sending the call
2 handle comprise instructions which, when executed by the machine, cause the machine to
3 perform further operations comprising sending an identification message through a digital
4 interface.

1 24. The medium of claim 23, wherein the digital interface comprises a digital
2 backplane connection to the call handling system.

1 25. A method comprising:
2 a port to receive an incoming call;
3 a call handle generator to generate a call handle for the incoming call;
4 a switching network to route the incoming call to a port of a call handling system;
5 and

6 an interface to send the call handle to the call handling system in association with
7 the routed call.

1 26. The apparatus of claim 25, wherein the interface comprises a digital
2 interface.

27. The apparatus of claim 26, wherein the digital interface comprises a digital
backplane connection to the call handling system.